Case Study: *Pension Obligation Bonds, When do they make sense?*

What are Pension Obligation Bonds? Unfunded Accrued Actuarial Liability ("UAAL")

- California local governments are required to provide Pension Benefits to their Employees
- Actuaries annually determine normal annual contributions, the "Normal Cost", an employer is required to make to fund the expected future pension system requirements
- An Unfunded Accrued Actuarial Liability ("UAAL," or "Unfunded Liability") occurs when an employer's pension system balance is determined to be insufficient to meet the future pension payment obligations of the employer.

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UAAL Pension Funding Alternatives

- Use Reserves to make full UAAL payment
- Increase payroll contribution rate
  - **This contribution increase would fund the normal cost and amortize the UAAL over the prescribed period**
- Decrease plan benefits
  - **Benefits often contractually determined and thus difficult to change, even if desired**
- Issue POBs to fund all or part of the UAAL
  - **Refinancing UAAL in the capital markets may result in savings (decreased payroll contribution)**

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Case Study: *Pension Obligation Bonds, When do they make sense?*

Pension Obligation Bonds Overview

- A POB financing is the refunding of all or a portion of an unfunded obligation to an issuer's pension fund
  - **Cashflow and estimated PV savings are substantial since the prior liability amortizes at the pension system's actuarially assumed investment rate (currently 7.75% rate for CalPERS agencies)**
  - **30 Year taxable pension bonds rate needs to be 1.50% to 2.00% below the assumed earnings rate**

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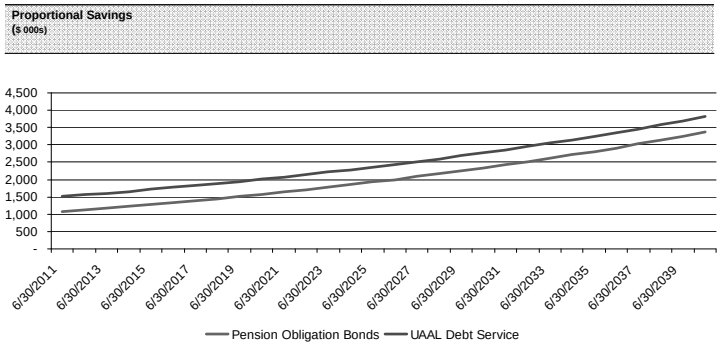
Potential Savings from POB Financing

- **Upfront Savings**
  - **$6.9 million PV savings**
  - **26.9% of UAAL**
  - **$437 thousand avg. annual savings**
- **Assumptions**
  - **UAAL = $25 million**
  - **Amortization = 30 years**
  - **7.75% Investment Rate**
  - **3.25% Payroll Growth Rate**



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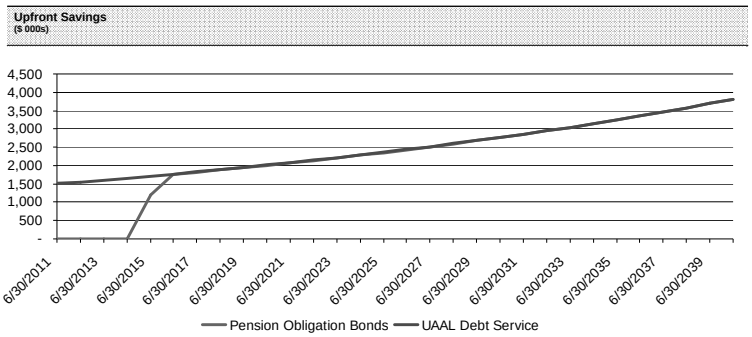
Case Study: *Pension Obligation Bonds, When do they make sense?*

Potential Savings from POB Financing

- **Upfront Savings**
  - **$6.7 million PV savings**
  - **26.2% of UAAL**
  - **$1.5 MM to $1.65 million savings for 4 years**
  - **$511 thousand savings in 5th year**
  - **Match UAAL amortization for remaining 25 years**
- **Assumptions**
  - **UAAL = $25 million**
  - **Amortization = 30 years**
  - **7.75% Investment Rate**
  - **3.25% Payroll Growth Rate**



Risks and Mitigants: Potential Risks of POBs

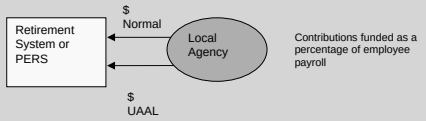
- Underperformance of system investments vs. interest rate on POBs
  - **Mitigated for CalPERS employers with fewer than 100 employees through risk sharing pools**
  - **Fixed Investment Rate at the assumed earnings rate (currently 7.75%) on all UAAL payments including a lump sum prepayment from POB proceeds**
- Strong future returns on system investments may result in participant over funding or surplus
- New benefits enhancements in the future can create a new UAAL

Case Study: *Pension Obligation Bonds, When do they make sense?*

Mechanics of Issuing Pension Bonds: Mechanics of a POB

- **Pension Payments "Mandated by law" obligation, exception to debt limit**
  - **Payment not optional**
  - **All available resources**
  - **Not subject to annual appropriation or abatement**
- **Normal: Cost of funding benefits *currently* accrued**
- **UAAL: Amortization of *previously* accrued but unfunded benefits**
- **UAAL payments implicitly include actuarially assumed interest expense**

Pension Funding Mechanics Before POBs



Mechanics of a POB

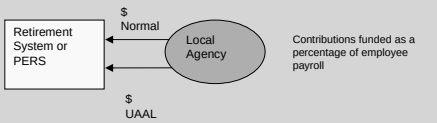
- **Refinancing this debt at lower rate leads to savings, independent of normal contributions**

1 **Local Agency issues taxable POBs**
  - **Bonds enjoy same level of statutory priority**
  - **Issue considered a current refunding**

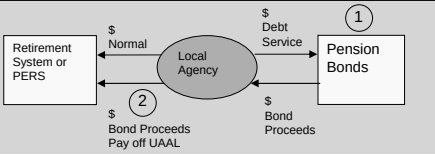
2 **Local Agency uses proceeds to pre-pay UAAL discounted at actuarially assumed rate**
  - **Option to bond for current normal payments, too**
  - **Not recommended for consolidated validation**

- **Debt Service replaces UAAL payment**
- **UAAL Bring Down Certificate Required**

Pension Funding Mechanics Before POBs



Pension Funding Mechanics After POBs



Case Study: *Pension Obligation Bonds, When do they make sense?*

Validation Process and Timing

Validation Overview

- Why is it required?
  - **Constitutional debt limit**
- What is validated?
  - **"Mandated by law" exception to the constitutional debt limit**
  - **Existing obligation eligible for refinancing**
- Process – Approximately 85-95 Days
  - **Council/Board authorization**
  - **Complaint filed with Superior Court**
  - **Hearing called, published and held**
  - **Default Judgment**
  - **30 day appeal period**

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Basic Techniques for County Financing: An Overview for County Officials

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Basic Techniques for County Financing: An Overview for County Officials

December 9, 2010

Pay as you go vs. Debt Financing

- Pay as you go saves interest cost, but delays project implementation
- Debt financing incurs interest expense, but funds project up front.
- Debt Financing is "pay as you use" in that the payments are spread out over some period similar to (or perhaps somewhat shorter than) the useful life of the facility.

1

Basic Techniques for County Financing: An Overview for County Officials

Essential Questions for Determining Your Financing Structure

- What is the project you need the money for?
- From what source of revenue will you pay it back?
- What additional security can you provide?
- Is voter approval possible?
- Will the project be publicly owned and used?
- Will you need to borrow more in the future?
- Is it possible you will want to pay off the debt early?

2

The Five Basic California Municipal Debt Types (for capital projects)

- General Obligation Bonds
- General Fund Lease Obligations
- Enterprise Revenue Obligations
- Tax Allocation Bonds (Redevelopment)
- Land Secured Obligations (Assessment/Mello-Roos)

OK, Six . . .

- Other Tax-Backed Obligations (Gas Tax, Sales Tax)

3

General Obligation Bonds

- Only for "acquisition and improvement of real property" – no equipment
- Requires 2/3 voter approval
- Generates own revenue stream for pay back (through *ad valorem* property tax override)
- Good for facilities of broad community benefit and appeal
  - Libraries
  - recreation and parks
  - community centers
  - police facilities

4

Why Use General Obligation Bonds?

Advantages

- Low borrowing cost
- Additional Revenue Stream
- Simple to issue and administer

Disadvantages

- 2/3 vote required – difficult and causes delay for election
- No equipment or personal property can be financed
- "Unfair" allocation of burden due to Prop 13

5

General Fund Lease Obligations

- Sometimes referred to as "COPs" although most are now issued as lease revenue bonds
- Unsecured obligation of general fund – but can direct specific revenue streams internally
- Must have a "leaseable asset" -- generally real property and buildings
- No voter approval required
- Does not generate new revenue stream for repayment

6

Why Use Lease Obligations?

Advantages

- May be implemented quickly
- No need to dedicate specific revenue stream
- Can finance real or personal property

Disadvantages

- Must have general fund capacity for repayment
- Limited to leaseable assets
- May require capitalized interest
- Need a "Lessor" JPA

7

Special Issues for Lease Financings

- Build to Suit leases
- Asset Transfer Leases
- Equipment "Vendor" leases
- Insurance Issues
- Essentiality Test
- Rating considerations

8

Enterprise Revenue Obligations

Debt Secured by Revenues of Facility or System

Typical Examples

- Water & Wastewater
- Solid Waste Facilities
- Electric System
- Ports/Airports

No Voter Approval Required

Credit based on rate structure and rate base

Rate covenant required

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Why Use Enterprise Revenue Obligations?

Advantages

- May be implemented quickly (if rates in place)
- Aligns payments with use of financed facilities
- Usually very cost effective way to borrow
- No burden on general fund

Disadvantages

- Must be nexus between financed facility and revenue stream
- Rates may need to be increased to cover debt
- Single facilities or new systems may be difficult to finance

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Tax Allocation Bonds (Redevelopment)

- Requires existence of Project Area with sufficient tax increment in place
- May finance a wide variety of facilities
- Must be related to redevelopment of project area
- No voter approval required
- If projects help add value, increases revenue stream for future projects

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Why Use Tax Allocation Bonds?

Advantages

- No general fund obligation
- Flexibility concerning types of facilities to be financed
- May be implemented quickly (once project area in place)

Disadvantages

- Hard to use for new project areas
- Limited to redevelopment related projects
- Credit varies depending on project area
- Currently a Very Difficult Credit Market

12

Land Secured Financing

- Burden placed on property through special tax or assessment
- Requires property owner (or voter) approval
- Facilities limited by benefit to burdened property (for assessments)
- Public Hearing and Protest/Election Proceedings required
- Distinguish New Development Financings from Financings for previously developed areas
- Limitations on facility types

13

Why Use Land Secured Financing?

Advantages

- Creates new revenue stream – development "pays its own way"
- Ability to align benefit of facilities to burdens of debt service
- No general fund liability

Disadvantages

- Complicated proceedings may take time
- Higher cost of borrowing (currently very high)
- Requires voter/property owner approval
- Increased tax burden on property owners

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Other Financing Techniques

- Securitization
  - Tobacco Securitization
  - VLF Securitization
  - Prop. 1-A Securitization
- Working Capital Borrowings (TRANs)
- Build America Bonds

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Tobacco Securitization

- Benefits of Securitization
  - Upfront Cash
  - Tobacco Industry Risk Reduction
- A true sale of the County's Tobacco Settlement Receipts ("Tobacco Receipts")
- Investors purchase bonds issued by the Issuer that will be repaid annually by the Tobacco Receipts
  - County has no obligation to pay bond debt service!
- County receives the following:
  - Upfront Purchase Price for the Tobacco Receipts
  - All Tobacco Receipts after the bonds have been paid off

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California County Tobacco Securitizations

- Between 2001 and 2007, over $3.5 billion was raised by California Counties through tobacco securitization transactions

Sale Date	Issuer	Par Amount
8/16/2001	Sacramento	$199,620,000
12/13/2001	San Diego	$466,840,000
3/21/2002	Stanislaus	$67,305,000
3/21/2002	Merced	$30,515,000
3/21/2002	Sonoma	$67,410,000
5/10/2002	Kern	$105,245,000
6/14/2002	Placer	$41,590,000
6/25/2002	Marin	$34,345,000
7/10/2002	Fresno	$92,955,000
7/17/2002	Cal Statewide	$196,545,000
10/16/2002	Alameda	$220,525,000
10/20/2005	Merced	$39,690,000
10/20/2005	Sonoma	$83,060,000
12/1/2005	Sacramento	$255,486,288
2/1/2006	Alameda	$67,858,509
2/2/2006	Los Angeles	$319,827,107
3/22/2006	Stanislaus	$42,153,611
4/6/2006	Fresno	$39,015,131
4/11/2006	Cal Statewide	$61,750,538
5/19/2006	Placer	$59,372,118
5/25/2006	San Diego	$583,630,660
6/16/2006	San Diego City	$105,400,000
1/11/2007	Santa Clara	$102,030,012
5/31/2007	Marin	$49,870,081
8/4/2007	Riverside	$294,084,291
	Total	**$3,520,723,347**

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What Can the Money be Used For?

- Capital Projects
  - Qualified tax-exempt uses
  - No time limits on expenditure
- Endowment Fund
  - Interest income and de-allocated securitization proceeds can be spent on programs or capital projects

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Why Would a County want to Securitize?

- Reduce Exposure to Tobacco Industry
  - Tobacco Receipts represent a non-diversified investment in the major tobacco companies
  - Tobacco industry is volatile, with low investment grade ratings
- Increase Budget Certainty
  - Cigarette consumption determines cash flow
  - Proceeds of sale can be invested in high quality fixed income securities
  - Cost of additional certainty equals the costs of issuance
- Additional Safety Net
  - Available cash for extreme economic distress
- "A Bird in the Hand"

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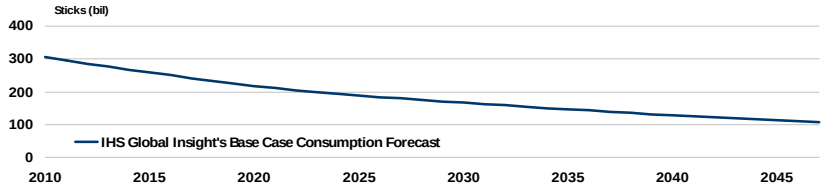
Tobacco Consumption Declined Dramatically in 2009 and is Projected to Continue Declining

Total cigarette industry shipment volume was down an estimated 9.3% for 2009

- Cigarette shipment volume continues to be negatively impacted by the April 1, 2009 $0.62 increase in the Federal Excise Tax, further increases in state excise taxes and the expansion of smoking bans
- The table to the right shows annual cigarette shipment volume declines since 2006 according to NAAG
- IHS Global Insight's unpublished consumption declines are expected to remain over 3% through 2022 and revert to decline trends of approximately 2.6% thereafter
  - Moody's is forecasting declines of 3% ~ 4% per annum
  - Fitch is forecasting cigarette volume declines in the low- to mid-single digits in 2011

2009	-9.3%
2008	-3.8%
2007	-4.8%
2006	+0.3%

Consumption Projections (2010-2047)

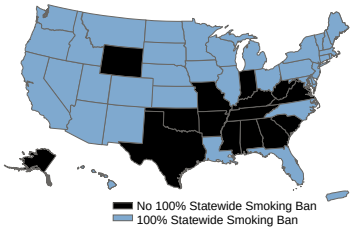


20

Proliferation of Smoking Bans

Smoking bans increased significantly and had a greater than expected impact on consumption

- **Indoor Smoking Bans.** 35 states have enacted a 100% statewide smoking ban in the workplace and/or restaurants and/or bars
  - 79% of the US population (i.e., 21,838 municipalities) are covered by a 100% smokefree provision by either a state, commonwealth, or local law
  - There have been 55 new local smokefree ordinances enacted in all workplaces, restaurants and bars from 2009 to 2010. Since 2005 the total number of ordinances increased 255%
  - As of October 1, 2010 there were 3,173 municipalities with indoor smoking restrictions
- **Outdoor smoking bans have dramatically increased since 2008**



Smokefree:	Beaches	Outdoor Public Transit Waiting Areas	Outdoor Dining	Parks
# of Municipalities	100	192	177	470
Statewide ban	ME, PR	IA, WI, Guam, U.S. V.I.	HI, IA, ME, WA, PR	▪ 103 municipalities in CA ▪ Momentum in 42 other states

A proliferation of the most severe bans limiting outdoor smoking would likely accelerate consumption declines

Source: *Americans for Nonsmokers' Rights*

21

Tobacco Litigation Overview

- As of October 20, 2010, 11,215 product liability cases were pending against cigarette manufacturers in the US
- Over the past five years, positive developments for the tobacco industry include:
  - No new major or emerging legal threats
  - Declining outstanding caseload
  - Successes in rejecting class certification of personal injury claims
  - Precedents against large-scale punitive damage awards
  - Increase in state appeal bond caps
  - Passage of Class Action Fairness Act

	MSA-Related Actions	Health Care Cost Recovery Actions	Smoking and Health Class Actions	"Lights" Class Actions	Individual Smoking and Health Cases
Major Cases	*Freedom Holdings* *Grand River* *Xcaliber* *S&M Brands*	*DOJ*	*Engle* Progeny	Multidistrict litigation in a single Federal Court (15) Federal Court (1) Various State Courts (13)	West Virginia Consolidated Cases (~700)
Verdicts	U.S. Second Circuit affirmed District Court judgment rejecting plaintiffs' claims in *Freedom Holdings*	*DOJ* verdict now final Other than certain governmental actions, cases largely unsuccessful on remoteness grounds	As of October 2010: In plaintiffs' favor (19) with total damages of $455mil In defendants' favor (9)	15 courts in 16 cases have refused to certify class actions, dismissed allegations, or reversed prior certifications	The litigation of the West Virginia cases will be a lengthy process and will follow an *Engle* like trial structure

Numbers in parenthesis indicate number of cases.

22

Securitizations of Receivables from State of California

- VLF Securitization
  - In 2005, 146 cities and counties sold right to receive repayment from State VLF taxes "borrowed" by State prior to 2003
  - Pooled program sponsored by CSAC Finance Corporation; participants received average of 93% of value of their VLF receivable
  - Bondholders assumed State repayment risk
- Proposition 1A Securitization
  - In 2009, over 1,000 local government entities (cities, counties, special districts) sold the State repayment obligation for property taxes borrowed under Proposition 1A to California Statewide Communities Development Authority (CSCDA)
  - CSCDA issued over $1.8 billion in three year bonds backed by the Proposition 1A receivables
  - Because the State agreed to pay interest on the bonds and issuance costs, participating agencies received 100% of the receivable

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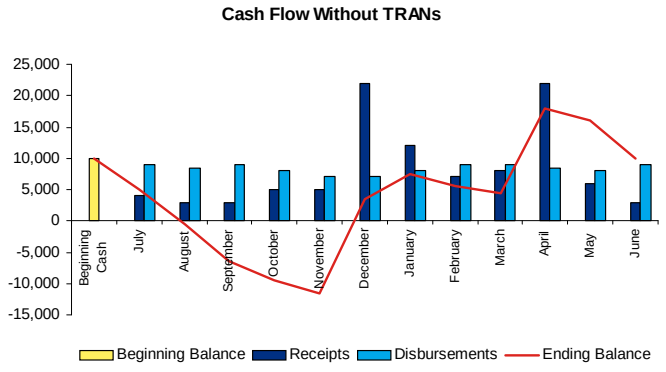
Working Capital Borrowing

- Commonly known as Tax and Revenue Anticipation Notes (TRANs)
- Short term (typically no more than 15 months)
- Teeter Financings – TRANs or Commercial Paper Program
- Must be issued during the related fiscal year
  - On or after July 1, 2011 for FY 2010-12
- Maturity Date can be in next fiscal year
  - Repayment pledges must be made during the fiscal year of issuance

24

Why TRANs Are Issued

- To cover short term deficits often associated with property tax receipts in December and April compared to relatively even monthly expenditures
- Sample County: $100 million budget with a $10 million beginning cash balance



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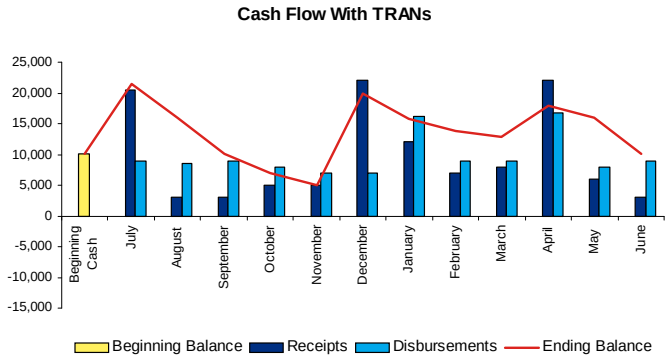
Why TRANs Are Issued

- $16.5 million of TRAN proceeds is included in July receipts
- TRAN Repayment Pledges equal to $8.25 million each are included in January and April disbursements



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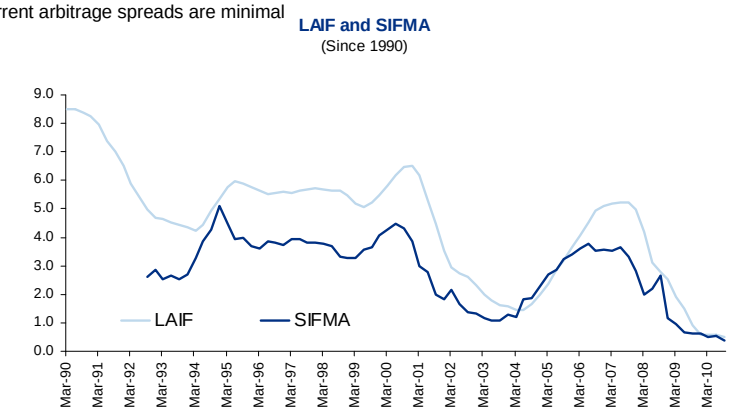
Why TRANs Are Issued

- Arbitrage potential
  - Tax Exempt borrowing rates are typically lower than taxable reinvestment opportunities
  - Historically arbitrage spreads have been approximately a 2.00% differential
- Arbitrage spread narrows when interest rates are low
  - Current arbitrage spreads are minimal



Source: Thomson Financial Securities Data and California State Treasurer's Office

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Tax Issues and Marketing Considerations for TRANs

Tax Issues

- Analyzing Cash Flow Deficit
- Reasonable Reserve
- Pension Prepayment Issue
- Restricted Funds
  (and not really restricted funds)

Marketing Considerations

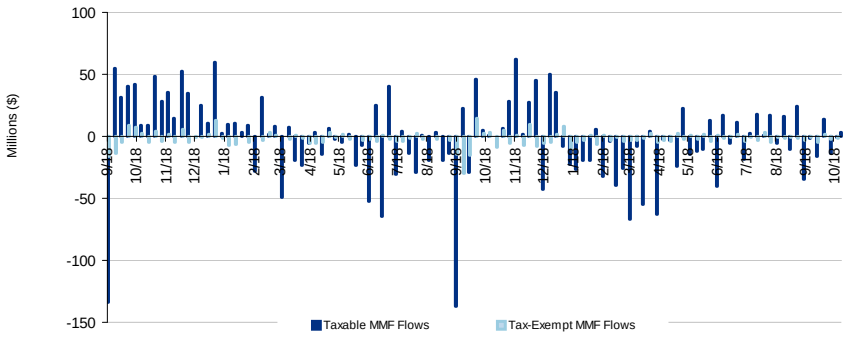
- Typical Short Term Ratings
  - MIG-1 or MIG-2 from Moody's Investors Service
  - SP-1+, SP-1, SP-2 from Standard & Poor's
  - F-1+, F-1, F-2 from Fitch
- Money Market Funds provide lowest cost of funds for issuers
- Recent Developments
  - Credit Sensitive Market

28

Money Market Fund Assets

- In 2009, Money Funds had net outflows of approximately $453 billion ($94B tax-exempt net outflow and $359B taxable net outflow)*
- In 2010 YTD, net outflows estimated at $506 billion ($71 billion tax-exempt net outflow and $435 billion taxable net outflow)*
- Outflows from taxable money market funds due in part to very low returns

Money Market Fund Flows Weekly Changes



As of 10/25/2010
Source: iMoneynet
29 *Total may not sum due to rounding

Money Market Fund Assets Levels Are Trending Downward

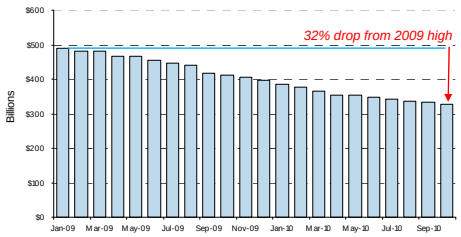
- In 2009, Tax-Exempt Money Funds had an average monthly balance of $446.6 billion; while in 2010 YTD, Tax-Exempt Money Funds have had an average monthly balance of $352.6 billion*
- In 2009, Taxable Money Funds had an average monthly balance of $3.1 trillion; while in 2010 YTD Taxable Money Funds have had an average monthly balance of $2.5 trillion*

Aggregate Tax-Exempt and Taxable Money Market Fund Balance ($ in trillions)

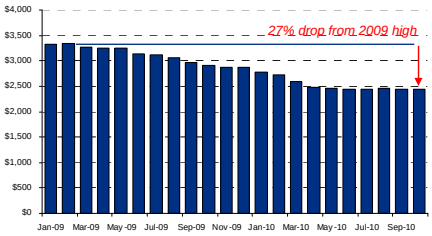
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2009	$3.82	$3.82	$3.74	$3.72	$3.71	$3.60	$3.56	$3.51	$3.38	$3.32	$3.27	$3.27
2010	$3.17	$3.10	$2.95	$2.83	$2.80	$2.78	$2.78	$2.80	$2.78	$2.77		

Money Market Fund Balance

Tax-Exempt Money Market Fund Balance



Taxable Money Market Fund Balance



As of 10/25/2010
Source: IMoneynet
*Total may not sum due to rounding

30

2010 California County TRANs Rates

CALIFORNIA COUNTY TRANS SOLD JUNE - PRESENT (2010)

Sale Date	Issuer	Par ($mm)	Maturity	Coupon	Yield	MIG 1 Index	Spread (basis points)	Moody's	S&P	Bid Type
6/1/2010	Orange	44.27	3/15/2011	2.00%	0.33%	0.36%	-3	MIG 1	SP-1+	Neg
6/1/2010	Orange	44.12	5/15/2011	2.00%	0.36%	0.38%	-2	MIG 1	SP-1+	Neg
6/1/2010	Orange	61.62	6/30/2011	2.00%	0.40%	0.40%	0	MIG 1	SP-1+	Neg
6/2/2010	San Bernardino	165.00	6/30/2011	2.00%	0.39%	0.40%	-1	MIG 1	SP-1+	Neg
6/2/2010	Ventura	131.00	7/1/2011	2.00%	0.40%	0.40%	0	MIG 1	SP-1+	Comp
6/3/2010	Santa Barbara	65.00	6/30/2011	2.00%	0.38%	0.40%	-2	NR	SP-1+	Neg
6/3/2010	Fresno	86.00	6/30/2011	2.00%	0.38%	0.40%	-2	NR	SP-1+	Comp
6/8/2010	Riverside	137.20	3/31/2011	2.00%	0.43%	0.35%	8	MIG 1	SP-1+	Neg
6/8/2010	Santa Cruz	50.00	6/30/2011	2.00%	0.50%	0.40%	10	MIG 1	SP-1+	Neg
6/8/2010	Riverside	205.80	6/30/2011	2.00%	0.55%	0.40%	15	MIG 1	SP-1+	Neg
6/9/2010	Butte	24.32	6/30/2011	2.00%	0.58%	0.41%	17	MIG 1	SP-1+	Neg
6/9/2010	Glenn	5.00	6/30/2011	2.00%	0.85%	0.41%	44	MIG 1	SP-1+	Neg
6/9/2010	Mendocino	24.31	6/30/2011	2.00%	1.10%	0.41%	69	NR	SP-1	Neg
6/9/2010	Yolo	21.65	6/30/2011	2.00%	1.00%	0.41%	59	MIG 1	SP-1+	Neg
6/11/2010	Los Angeles	1,300.00	6/30/2011	2.00%	0.85%	0.41%	44	MIG 1	SP-1+	Neg
8/17/2010	Monterey	40.00	4/29/2011	1.50%	0.33%	0.30%	3	MIG-1	SP-1+	Neg
10/20/2010	Kern County	180.00	6/30/2011	1.50%	0.43%	0.41%	2	MIG-1	SP-1+	Comp
10/21/2010	Sonoma	135.00	10/27/2011	2.00%	0.35%	0.41%	-6	MIG-1	SP-1+	Comp

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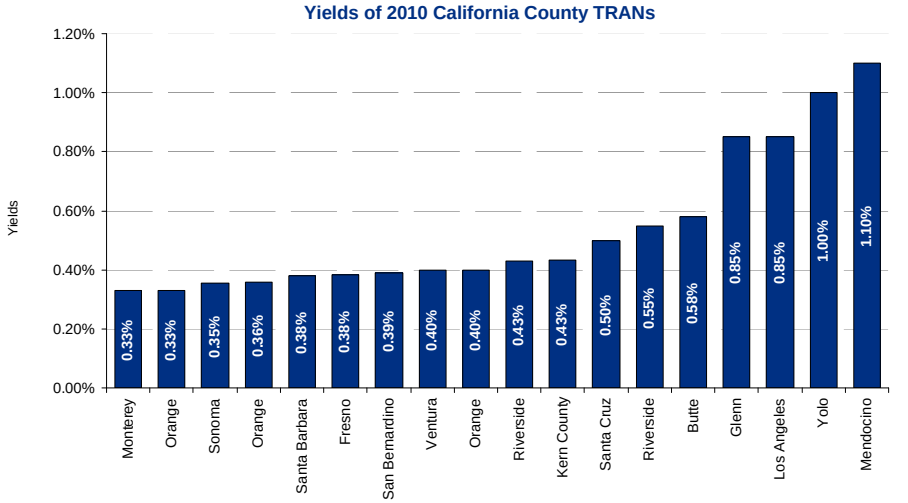
Basic Techniques for County Financing: An Overview for County Officials

2010 California County TRANs Rates



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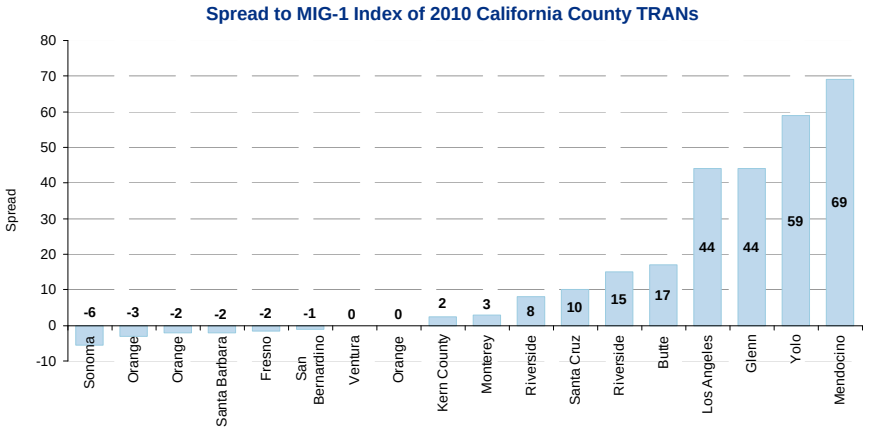
2010 California County TRANs Rates



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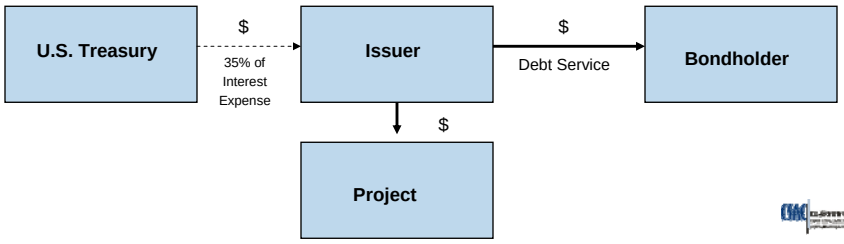
What are BABS and How Do Direct Subsidy BABs Work?

- All State and local government issuers may issue BABs
- The interest on BABs is "taxable"
- The bonds must be a "governmental bond" (i.e., private use is limited)
- Direct Subsidy BABs may be issued for new money capital expenditures only
- A Federal subsidy equal to 35% of the interest will be paid to the issuer
- BABs may be issued in 2009 and 2010
- Tax-exempt bond rules apply to BABs (e.g., arbitrage rebate, too much private use will jeopardize the subsidy)
- File 8038 CP to receive subsidy



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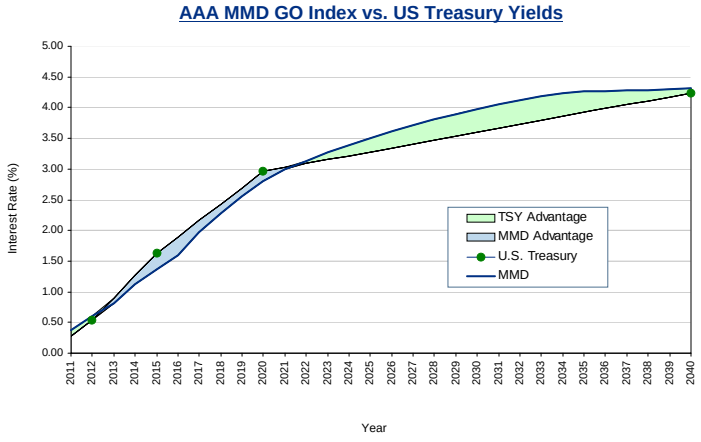
Current MMD & Treasury Yield Curves

Historically low MMD is advantageous for the majority of the curve



As of 12/1/2010

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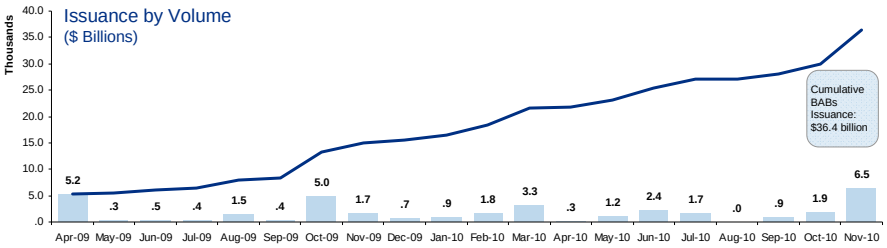
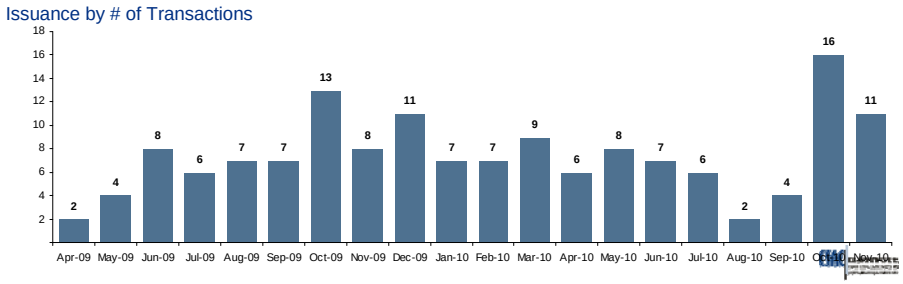
Growth of the California Build America Bonds Market





Source: Thomson Financial Securities Data

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Top 10 California Issuers of BABs

Issuer	Par Amount ($ million)	# of Issues
State of California	13,413.0	6
Bay Area Toll Authority	3,275.0	3
Regents of the University of California	2,637.6	5
Los Angeles Unified School District	2,620.4	2
Los Angeles Department of Water & Power	1,722.3	3
San Francisco Public Utilities Commission	954.4	3
Los Angeles Community College District	900.0	1
Los Angeles County Metropolitan Transportation Authority	574.0	1
California State Public Works Board	550.6	4
East Bay MUD	550.0	2

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Additional Considerations

Common Issues for Bond Issues

- Ratings/Credit Enhancement
- Fixed or Variable Rate Debt
- Early Redemption Provisions
- Funded (Capitalized) Interest
- Capital Appreciation Bonds
- Refundings

Special Structures

- Pooled Financings
  - Captive
  - Multi Agency
- "Double Barreled" Financings
- Taxable/Tax-Exempt Blends
- Private Placements

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Basic Tax Rules for All Tax-Exempt Bonds

- Limitations on Use of Proceeds and Payment
  - Private Use Limitation
  - Private Security Limitation
  - Private Loan Limitation
- Investment Limitations – Arbitrage
- Three Year Expenditure Test
- Rebate Compliance
- IRS Audits

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efficiency, renewable energy & mitigation

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